

REMARKS

Applicants cancel claims 35-80 and 96-118 and amend claims 3, 10, and 81 such that claims 1-34 and 81-95 are pending in this application. Applicants respectfully request allowance of all the pending claims.

Information Disclosure Statement

Applicants filed Information Disclosure Statements (“IDS’s”) in this Application on January 29, 2002 and June 6, 2003. In reviewing the Office action, Applicants noticed that the Examiner failed to provide initialed copies of the IDS’s to Applicants. Applicants respectfully request the Examiner to consider the references submitted with the IDS’s and to provide Applicants with initialed copies of the IDS’s.

Disclosure Objections

The Examiner objects to the disclosure for the following informalities. First, the Examiner identifies that claim 3 should be amended to read “the direction that the first actuator moves the first separator finger”. Second, the Examiner notes that in claim 10 the word “separation” should read “separator”. Applicants amend claims 3 and 10 accordingly. Applicants respectfully request the Examiner to withdraw the objection of the disclosure.

Claim Rejections – 35 U.S.C. §112

The Examiner rejects claims 81-87 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctively claim the subject matter which Applicants regard as the invention. Specifically, the Examiner identifies that there is no proper antecedent basis for “the first separator finger”. In response, Applicants amend claim 81 to eliminate the word “first” so that the claim refers to “the separator finger”, which has proper antecedent basis. Applicants respectfully request the Examiner to remove the rejection of claims 81-87.

Claim Rejections – 35 U.S.C. §102

The Examiner rejects claims 1, 2, 5, 6, 8, 11-13, 20, 21, and 24-27 under 35 U.S.C. §102(b) as being anticipated by United States Reissue Patent No. RE 32,872 (“Buck”). The

Examiner also rejects claims 1-34 and 81-95 under 35 U.S.C. §102(b) as being anticipated by any one of United States Patent Nos. 5,730,695 (“Hauschild”), 4,930,977 (“Beeman”), and 4,770,402 (“Couturier”).

Independent claim 1 recites an apparatus for stacking sheets from a starwheel assembly. The apparatus includes, among other things, a first separator finger that is movable to an extended position between first and second adjacent sheets within the starwheel assembly.

Independent claim 20 recites a method for stacking sheets from a starwheel assembly. The method includes, among other things, inserting a first separator finger between two adjacent sheets positioned within the starwheel assembly.

Independent claim 81 recites an apparatus for stacking sheets from a starwheel assembly. The apparatus includes, among other things, a separator finger that is movable to an extended position between first and second adjacent sheets within the starwheel assembly.

Independent claim 88 recites a method for stacking sheets of product discharged from a starwheel. The method includes, among other things, separating sheets in the starwheel by moving the separator finger.

Independent claims 1 and 20 each recite moving a separator finger between two adjacent sheets within a starwheel, and therefore, independent claims 1 and 20 will be discussed together below to address the Examiner’s rejection based on Buck.

Independent claims 1, 20, 81, and 88 (“the independent claims”) each recite either moving a separator finger between two adjacent sheets within a starwheel or separating sheets within a starwheel by moving the separator finger, and therefore, the independent claims will be discussed together below to address the Examiner’s rejections based on Hauschild, Beeman, and Couturier.

Buck

Buck discloses an apparatus for depositing sheets in a pile and for removing the pile. As shown in Fig. 4, a new pile 14a forms by sliding multiple sheets 12 onto a carrier finger 47 of a starwheel 41. In Fig. 5, the pile 14a is completed and the starwheel 41 is rapidly rotated by one spacing (i.e. by a quarter rotation) so that the leading edge 20 of the pile 14a contacts the stop 19 removing the pile 14a from the starwheel 41. After the pile 14a is removed from the starwheel 41, the support elements 25 and stop 19 are lowered beneath the pile table 17 allowing the pile

14a to fall onto the pile table 17. A gripper 39 is moved onto the leading edge 20 of the pile 14a, closes over it (Fig. 3), and removes the pile 14 in the sheet movement direction 15

Buck does not teach or suggest moving a separator finger between two adjacent sheets within a starwheel. The Examiner identifies carrier finger 47 as a first separator finger and the gripper 39 as the second separator finger. Neither the carrier finger 47 nor the gripper 39 are moved between *two adjacent sheets located within the starwheel* 41. Instead, the carrier finger 47 and the gripper 39 are moved between one sheet within the starwheel and one sheet *outside of the starwheel* 41. Specifically, the carrier finger 47 (Fig. 1) is positioned between the bottom sheet of a new pile 14a that is *within the starwheel* 41 and an adjacent top sheet of the completed pile 14 that is *outside of the starwheel* 41. Likewise, the gripper 39 (Fig. 3) is also positioned between the bottom sheet of a new pile 14a that is *within the starwheel* 41 and an adjacent top sheet of the completed pile 14 that is *outside of the starwheel* 41.

Therefore, Buck does not teach or suggest the subject matter defined by independent claims 1 and 20. Accordingly, independent claims 1 and 20 are allowable. Claims 2-19 depend from allowable independent claim 1 and claims 21-34 depend from allowable independent claim 20. Claims 2-19 and 21-34 are allowable for the same reasons as the independent claims and are also allowable for other reasons.

Hauschild

Hauschild discloses an apparatus 1 for stacking zig-zag interfolded towels 3 in a stack 2. The apparatus includes two folding rollers 6 and 7 which fold and deposit the successive towels 3 on a stacking table 8 so that the consecutive towels 3 are interfolded and alternately arranged with their folded edge facing to the right and to the left (Fig. 4). The stacking table 8 is formed by a lowerable stack support or carrier arrangement. The apparatus also includes separating and carrying forks 11 and 12 and stripping fingers 13 and 14 that cooperate with the folding rollers 6 and 7. The stripping fingers 13 and 14 assist to fold the towels 3 and the carrying forks 11 and 12 assist in separating and supporting the stacks 2.

Hauschild does not teach or suggest a starwheel assembly. Although the Examiner identifies folding rollers 6 and 7 as the starwheel assembly, one of ordinary skill in the art understands the distinction between a starwheel assembly and folding rollers 6 and 7. As described in the Application, a starwheel assembly receives sheets within slots, grooves,

recesses, or other types of apertures capable of receiving sheets of product therein for transport as the starwheel assembly rotate. The sheets are discharged from the starwheel assembly by a barrier that contacts sheets that are within the slots as the starwheel assembly rotates. The barrier provides a force against one end of the sheet such that the sheet discharges from the starwheel assembly as the fin on which the sheet rests continues to rotate past the barrier. In contrast, folding rollers utilize vacuum to receive and hold sheets on the outer periphery of the rollers, and then deactivate the vacuum to release the sheets allowing the sheets to fall to the stack with the assistance of the stripping fingers, which also serve to crease the fold.

Therefore, Hauschild does not teach or suggest the subject matter defined by the independent claims. Accordingly, the independent claims are allowable. Claims 2-19 depend from allowable independent claim 1, claims 21-34 depend from allowable independent claim 20, claims 82-87 depend from allowable independent claim 81, and claims 89-95 depend from allowable independent claim 88. Claims 2-19, 21-34, 82-87, and 89-95 and are allowable for the same reasons as the independent claims and are also allowable for other reasons.

Beeman

Beeman discloses an apparatus for stacking envelopes. As shown in Fig. 5, envelopes 50 are conveyed from an upper level conveyor (not shown) to a spider feeder 52, where they contact the separator bars 248, 250 and are removed from the spider feeder 52. At this time, the bottom fingers 58 pivot upwardly and the envelopes 50 fall from the spider feeder 52 to collect in a first stack 48 upon the bottom fingers 58. As shown in Fig. 6, when a predetermined number of envelopes 50 have been collected upon the bottom fingers 58, the hold back fingers 54 and the transfer fingers 56 extend to collect successive envelopes 50' into a second stack 48'. As shown in Fig. 7, the transfer fingers 56 pivot downwardly to bear down against the topmost envelope of the completed first stack 48. Once the stack 48 has been lowered so that it rests upon the channel 46, the conveyor 36 is actuated to index the loaded bucket forwardly, thereby removing that bucket from the bottom fingers 58 and presenting an empty bucket 40' into the stacking zone, as shown in Fig. 8. At this time, the transfer fingers 56 and the bottom fingers 58 pivot upwardly to return to the position shown in Fig. 5. At that time, the hold back fingers 54 and transfer fingers 56 are retracted to allow the stack 50', which had been collecting upon the hold back fingers 54 to fall upon the bottom fingers 58.

Beeman does not teach or suggest moving a separator finger between two adjacent sheets within a starwheel or separating sheets within a starwheel by moving the separator finger. The Examiner identifies the hold back fingers 54 as a first separator finger and the transfer fingers 56 as the second separator finger. Neither the hold back fingers 54 nor the transfer fingers 56 are moved between *two adjacent sheets located within the starwheel* 41. Instead, the hold back fingers 54 and the transfer fingers 56 are moved between one sheet within the starwheel 52 and one sheet *outside of the starwheel* 52. Specifically, the hold back fingers 54 (Fig. 6) are positioned between the bottom sheet of a new stack 48' that is *within the starwheel* 52 and an adjacent top sheet of the completed stack 48 that is *outside of the starwheel* 52. Likewise, the transfer fingers 56 (Fig. 6) are also positioned between the bottom sheet of a new stack 48' that is *within the starwheel* 52 and an adjacent top sheet of the completed stack 48 that is *outside of the starwheel* 52.

Therefore, Beeman does not teach or suggest the subject matter defined by the independent claims. Accordingly, the independent claims are allowable. Claims 2-19 depend from allowable independent claim 1, claims 21-34 depend from allowable independent claim 20, claims 82-87 depend from allowable independent claim 81, and claims 89-95 depend from allowable independent claim 88. Claims 2-19, 21-34, 82-87, and 89-95 and are allowable for the same reasons as the independent claims and are also allowable for other reasons.

Couturier

Couturier discloses an apparatus for separating predetermined quantities of interfolded sheet products. The apparatus includes folding rolls 22, 20 that interfold severed webs 64, 66 and release the interfolded severed webs 64, 66 or cut sheets 11 to build a stack 8 on a table 26 by a pair of packer fingers 40, 38 (Fig. 5). The apparatus also includes a first and second count fingers 28, 48 that operate to separate and support the stacks 8.

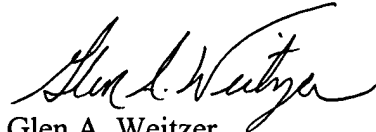
Couturier does not teach or suggest a starwheel assembly. Although the Examiner identifies folding rolls 22, 20 as the starwheel assembly, one of ordinary skill in the art understands the distinction between a starwheel assembly and folding roll 22, 20. As described in the Application, a starwheel assembly receives sheets within slots, grooves, recesses, or other types of apertures capable of receiving sheets of product therein for transport as the starwheel assembly rotate. The sheets are discharged from the starwheel assembly by a barrier that

contacts sheets that are within the slots as the starwheel assembly rotates. The barrier provides a force against one end of the sheet such that the sheet discharges from the starwheel assembly as the fin on which the sheet rests continues to rotate past the barrier. In contrast, folding rolls utilize vacuum to receive and hold sheets on the outer periphery of the roll, and then deactivate the vacuum to release the sheets allowing the sheets to fall to the stack with the assistance of the packer fingers, which also serve to crease the fold.

Therefore, Couturier does not teach or suggest the subject matter defined by the independent claims. Accordingly, the independent claims are allowable. Claims 2-19 depend from allowable independent claim 1, claims 21-34 depend from allowable independent claim 20, claims 82-87 depend from allowable independent claim 81, and claims 89-95 depend from allowable independent claim 88. Claims 2-19, 21-34, 82-87, and 89-95 and are allowable for the same reasons as the independent claims and are also allowable for other reasons.

The Examiner is invited to contact the undersigned attorney should the Examiner determine that such action would facilitate the prosecution and allowance of the present application.

Respectfully submitted,



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